Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An obturator for sealing between a projectile and a gun tube having a smooth gun bore, the obturator comprising:

at least one gun tube side cannelure ~~cannellure~~;

at least one projectile side cannelure ~~cannellure~~ located opposite to the at least one gun tube side cannelure ~~cannellure~~, where the at least one gun tube side cannelure ~~cannellure~~ is conformed to seal around the projectile; and

a tail protruding from a rearward end of the at least one gun tube side cannelure ~~cannellure~~, where the tail makes contact with the bore to make a low pressure seal.

2. (previously presented) The obturator of claim 1 wherein the obturator comprises material selected from the group consisting of nylon, nylon 6-6 ($C_{12}H_{22}O_2N_2$), nylon 6-12 ($C_{18}H_{34}O_2N_2$), polymer, homopolymer and resin.

3. (previously presented) The obturator of claim 1 wherein the projectile comprises a sabot.

4. (currently amended) The obturator of claim 1 wherein the at least one projectile side cannelure ~~cannellure~~ comprises a first set of cannelures ~~cannellures~~ that contact a first surface of the projectile, and a second set of cannelures ~~cannellures~~ that contact a second surface of the projectile, where the second surface has a different circumference from the first surface so as to be offset from the first surface so as to provide a redundant seal.

5. (previously presented) The obturator of claim 4 wherein the obturator slides along the surface of the projectile, as the obturator contacts the smooth gun bore, where an interference fit exists between the obturator and the projectile such that the obturator serves as a retaining ring around the projectile.

6. (previously presented) The obturator of claim 1 wherein the obturator comprises a wedge that fits a wedge-shaped gap between the projectile and the smooth gun bore.

7. (previously presented) The obturator of claim 6 wherein the wedge has a wedge angle Φ between the projectile and the gun tube bore, wherein the wedge angle Φ is less than 10°.

8. (previously presented) The obturator of claim 7 wherein the wedge angle Φ is greater than 10°, but less 40°.

9. (previously presented) The obturator of claim 7 wherein the wedge angle Φ is greater than 10°.

10. (previously presented) The obturator of claim 1 wherein the obturator has a thickness of .25 inches (6.35 mm) or less.

11. (previously presented) The obturator of claim 10 wherein the obturator comprises material selected from the group consisting of nylon, nylon 6-6 ($C_{12}H_{22}O_2N_2$), nylon 6-12 ($C_{18}H_{34}O_2N_2$), polymer, homopolymer and resin.

12. (previously presented) The obturator of claim 1 wherein the tail is thinner than the rest of the obturator so as to be flexible enough to permit a low chambering force.

13. (previously presented) The obturator of claim 1 wherein the projectile is selected from the group consisting of a puller sabot munition, a cased telescoped munition, a munition for use with a gun tube having a forcing cone, a training round, a slug, a tactical kinetic energy round, a chemical energy round, and a multipurpose round.

14. (previously presented) The obturator of claim 1 wherein the projectile and obturator have a caliber of more than 45 mm.

15. (previously presented) The obturator of claim 1 wherein the projectile and obturator have a caliber of more than 90 mm.

16. (previously presented) The obturator of claim 1 wherein the obturator comprises an injection molded part.

17. (previously presented) The obturator of claim 1 wherein the obturator comprises a molded part or an extruded and machined part.

18. (previously presented) The obturator of claim 1 wherein the obturator comprises a part that is molded in place on the projectile.

19. (currently amended) An obturator for sealing between a projectile and a gun tube having a smooth gun bore, the obturator comprising:

at least one gun tube side cannelure ~~cannellure~~;

at least one projectile side cannelure ~~cannellure~~ located opposite to the at least one gun tube side cannelure ~~cannellure~~, where the at least one gun tube side cannelure ~~cannellure~~ is conformed to seal around the projectile; and

a tail protruding from a rearward end of the at least one gun tube side cannelure ~~cannellure~~, where the tail makes contact with the smooth gun bore to make a low pressure seal, wherein the obturator slides along the surface of the projectile, as the obturator contacts the smooth gun bore, where an interference fit exists between the obturator and the projectile such that the obturator serves as a retaining ring around the projectile, and wherein the at least one projectile side cannelure ~~cannellure~~ has a first set of cannelures ~~cannellures~~ that contact a first surface of the projectile, and a second set of cannelures ~~cannellures~~ that contact a second surface of the projectile, where the second surface has a different circumference from the first surface so as to be offset from the first surface so as to provide a redundant seal.

20. (previously presented) The obturator of claim 19 wherein the obturator comprises material selected from the group consisting of nylon, nylon 6-6 ($C_{12}H_{22}O_2N_2$), nylon 6-12 ($C_{18}H_{34}O_2N_2$), polymer, homopolymer and resin.